

Declaration and Report of Dr. Tye Rush

1. Pursuant to 28 U.S.C. Section 1746, I, Tye Rush, declare as follows:
2. My name is Tye Rush and I am currently a UC President's Postdoctoral Fellow (PPFP) in the Department of Political Science at the University of California, San Diego. Starting in the Summer of 2025, I will be an assistant professor of Political Science at the University of California, Davis. My research addresses questions in race and ethnic politics, voting rights, elections, and state politics. Additionally, I am currently a Senior Fellow at the UCLA Voting Rights Project (VRP). At the UCLA VRP my duties include managing and processing data and maps, conducting statistical analysis of voting results, and working with census data or voter file data to assess racial/ethnic demographics. I am the head of redistricting mapping and GIS at UCLA VRP. In my role with VRP I teach advanced courses and train undergraduate students, graduate students, and research fellows on how to properly draw maps to redistrict cities, counties, and states. During my time as Senior Fellow with the UCLA Voting Rights Project, I collaborated with statisticians and political scientists to conduct mapping analysis in numerous jurisdictions.
3. I have designed and taught a full undergraduate course on voting rights, including political mapping and basics of districting at UCLA in the department of political science. I have been hired as a consultant to draw and evaluate redistricting maps in California for different organizations and advocacy groups as they pertain to the 2021 redistricting within the state.
4. I have been recognized as an expert on political geography, mapping, and electoral behavior in *Petteway, et al. v. Galveston County, et al.*, No. 3:22-cv-57 (S.D. Tex. Oct. 2023).
5. I received my PhD in Political Science from the University of California, Los Angeles. I received my B.A. in Public Service/Political Science from the University of California, Riverside in 2016. I received my M.A. in Political Science from the University of California, Los Angeles in 2019. My doctoral dissertation project concerning the Voting Rights Act was awarded the Dissertation Scholars Award from Princeton University Mamdouha S. Bobst Center for Peace and Justice.
6. My full professional qualifications and activities are set forth in my curriculum vitae. A true and correct copy has been attached hereto as Appendix A. I am being compensated by the Plaintiffs at a rate of \$275 an hour for my work and \$350 per hour for any oral testimony in this case.

Scope of Work

7. The Plaintiffs in this suit requested that I evaluate and analyze demonstrative plans that were both considered for the Texas State House and Texas Congressional map and the enacted plans for the Texas State House and the Texas Congressional map for compliance with traditional redistricting principles, compliance with the standards set forth in *Gingles*

I, and whether the demonstrative districts subordinated traditional districting principles to racial considerations.

8. To conduct my analysis, I used ESRI Redistricting Software, data provided by the Texas Legislative Council (TLC), and qGIS. ESRI Redistricting is an online Geographic Information System (GIS) software that allows users to draw and analyze maps and district boundaries. It is the world's leading GIS mapping software and is commonly used by GIS specialists throughout the country.

Data

9. The data referenced, analyzed, and considered in this report is derived from the United States Census Bureau and the Texas Legislative Council (TLC).
10. I obtained from the TLC several files including map files, racial data, election results and compactness analysis for the following plans, including the following red reports: r225, r235, r240, r315, r340, r135, and r116. I have produced all these files contemporaneous with this report and they are incorporated herein for all purposes. I expect to give testimony of the contents of these reports and to describe the features and related data for each of these plans and any other plans presented at trial that I am asked about: C2163, C2167, H2176, S2132, S2134, H2316, C2193, and S2168. All of these plans are publicly available on Texas District Viewer, the state data portal and/or TLC websites and databases.
11. Each plan referenced will be attached in the appendix. The Appendix will refer to each plan number, for example, Plan C2163 will be "Appendix C2163." Some of the facts and opinions I intend to highlight on each plan are below.

Texas Congressional Plans

A. Dallas Fort-Worth Area

- i. Plan C2163, provided in the appendix as C2163, is a districting configuration where Latinos are sufficiently large and geographically compact to constitute a majority in an additional single-member district without disturbing other Latino opportunity districts.
- ii. The TLC tables in my appendices provide a demographic breakdown of C2163's Congressional districts, including total population tabulations from the 2020 Decennial Census and from the Citizen Voting Age Population (CVAP) 5-Year estimates in the 2023 American Community Survey (ACS) data. I will testify about any of the data provided.
- iii. C2163's proposed Latino opportunity district in the Dallas Fort-Worth Area complies with traditional redistricting criteria and respects communities of interest at least as much as the enacted plan. I expect to provide testimony of the data, geography, compactness and other characteristics of the enacted and benchmark plans. My analysis of the

plan results in my conclusion that the proposed Latino opportunity district does not subordinate traditional districting principles¹ to racial considerations.

- iv. I will provide testimony of the layout of C2163 including describing the geography that makes up the plan as well as its other characteristics including the historical and expected electoral performance of districts in the plan. I will describe the plan's compactness and district shape characteristics.
- v. C2163 creates a Latino opportunity district, Congressional District 37 (CD37) that is above the 50% +1 *Gingles I* threshold, as shown in the attached reports.
- vi. Plan C2163 creates a Latino CVAP majority district in Dallas/Fort Worth (DFW), District 37, while maintaining the existing districts in which Latino voters can elect their candidates of choice.
- vii. I will provide similar testimony of the characteristics of the other maps included in my appendices. I will also review the maps and plans submitted by other experts and parties to this case and provide my opinions on those plans, if asked.

B. Houston Area

- i. Plan C2163, provided in the appendix as C2163, is a districting configuration where Latinos are sufficiently large and geographically compact to constitute a majority in an additional single-member district without disturbing other Latino opportunity districts.
- ii. The TLC tables in my appendices provide a demographic breakdown of C2163's Congressional districts, including total population tabulations from the 2020 Decennial Census and from the Citizen Voting Age Population (CVAP) 5-Year estimates in the 2023 American Community Survey (ACS) data. I will testify about any of the data provided.
- iii. C2163's proposed Latino opportunity districts in the Houston Area comply with redistricting criteria and respect communities of interest at least as much as the enacted plan. I expect to provide testimony of the data, geography, compactness and other characteristics of the enacted and benchmark plans. My analysis of the plan results in my conclusion that the proposed Latino opportunity districts do not subordinate traditional districting principles to racial considerations.
- iv. I will provide testimony of the layout of C2163 including describing the geography that makes up the plan as well as its other characteristics including the historical and expected electoral performance of districts in

¹ National Conference of State Legislatures. "Redistricting Criteria." <https://www.ncsl.org/elections-and-campaigns/2020-redistricting-criteria>

the plan. I will describe the plan's compactness and district shape characteristics.

- v. C2163 creates a Latino opportunity district, Congressional District 29 (CD29) that is above the 50% +1 *Gingles I* threshold, as shown in the attached reports.
- vi. Plan C2163 creates an additional Latino CVAP majority district in Houston, District 29, while maintaining the existing districts in which Latino voters can elect their candidates of choice.
- vii. Plan C2167 likewise creates the same two Latino CVAP majority districts, CDs 29 and 38, as Plan C2163 with slightly different configurations of nearby districts, while maintaining the same existing districts in which Latino voters can elect their candidates of choice as does Plan C2163.
- viii. The TLC tables in my appendices provide a demographic breakdown of C2167's Congressional districts, including total population tabulations from the 2020 Decennial Census and from the Citizen Voting Age Population (CVAP) 5-Year estimates in the 2023 American Community Survey (ACS) data. I will testify about any of the data provided.
- ix. I will provide the same testimony regarding C2167 as discussed above regarding C2163.
- x. I will provide similar testimony of the characteristics of the other maps, including in my appendices. I will also review the maps and plans submitted by other experts and parties to this case and provide my opinions on those plans.

Texas House Plans

A. HD118

- i. Plan H2176, provided in the appendix as H2176, is a districting configuration demonstrating that Latinos are sufficiently large and geographically compact to constitute a majority of eligible voters in HD118 without disturbing other Latino opportunity districts in Bexar County.
- ii. The TLC tables in my appendices provide a demographic breakdown of H2176's State House districts, including total population tabulations from the 2020 Decennial Census and from the Citizen Voting Age Population (CVAP) 5-Year estimates in the 2023 American Community Survey (ACS) data. I will testify about any of the data provided.
- iii. Plan H2176 includes a Latino opportunity district (HD118) in Bexar County that complies with stated redistricting criteria and respects communities of interest at least as much as the enacted plan. I expect to provide testimony of the data, geography, compactness and other

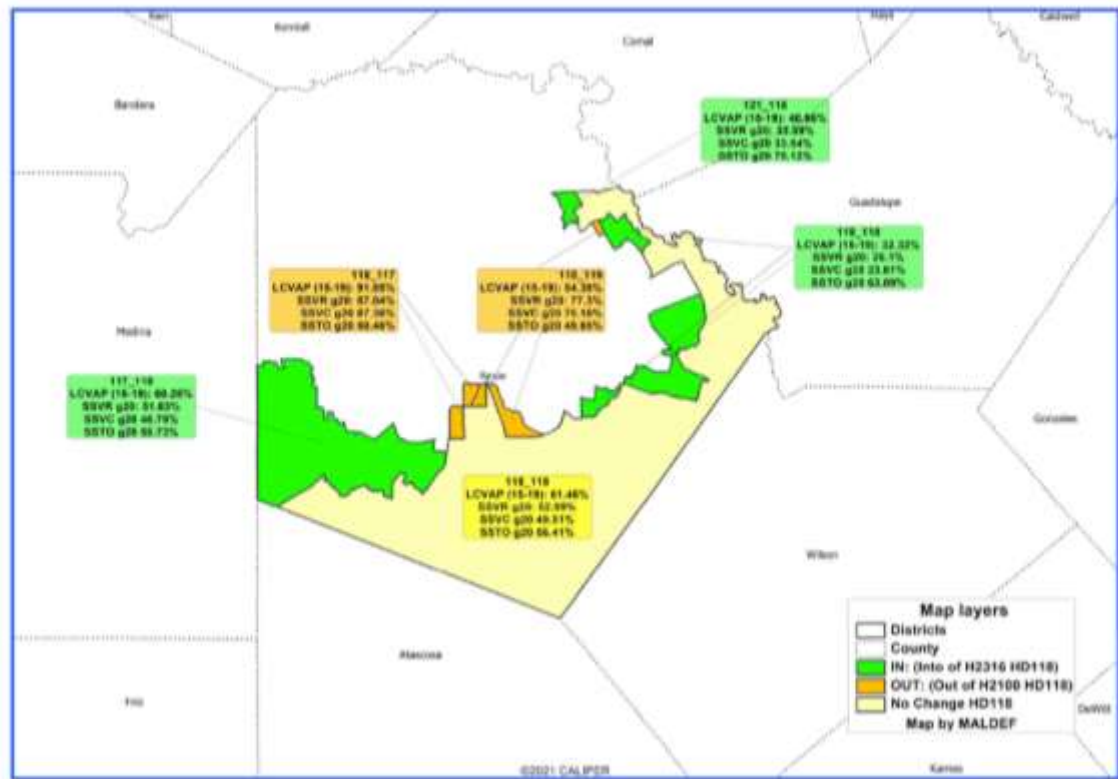
characteristics of the enacted and benchmark plans. My analysis of the plan results in my conclusion that proposed HD118 does not subordinate traditional districting principles to racial considerations.

- iv. I will provide testimony of the layout of H2176, including describing the geography that makes up the plan as well as its other characteristics, including the historical and expected electoral performance of districts in the plan. I will describe the plan's compactness and district shape characteristics.
- v. Plan H2176 includes a Latino opportunity district in Bexar County, House District 118 (HD118). This district is above the 50% +1 *Gingles I* threshold, as shown in the attached reports.
- vi. Plan H2176 includes HD118 while maintaining other existing districts in which Latino voters can elect their candidates of choice.
- vii. I will provide similar testimony of the characteristics of the other maps including in my appendices. I will also review the maps and plans submitted by other experts and parties to this case and provide my opinions on those plans.

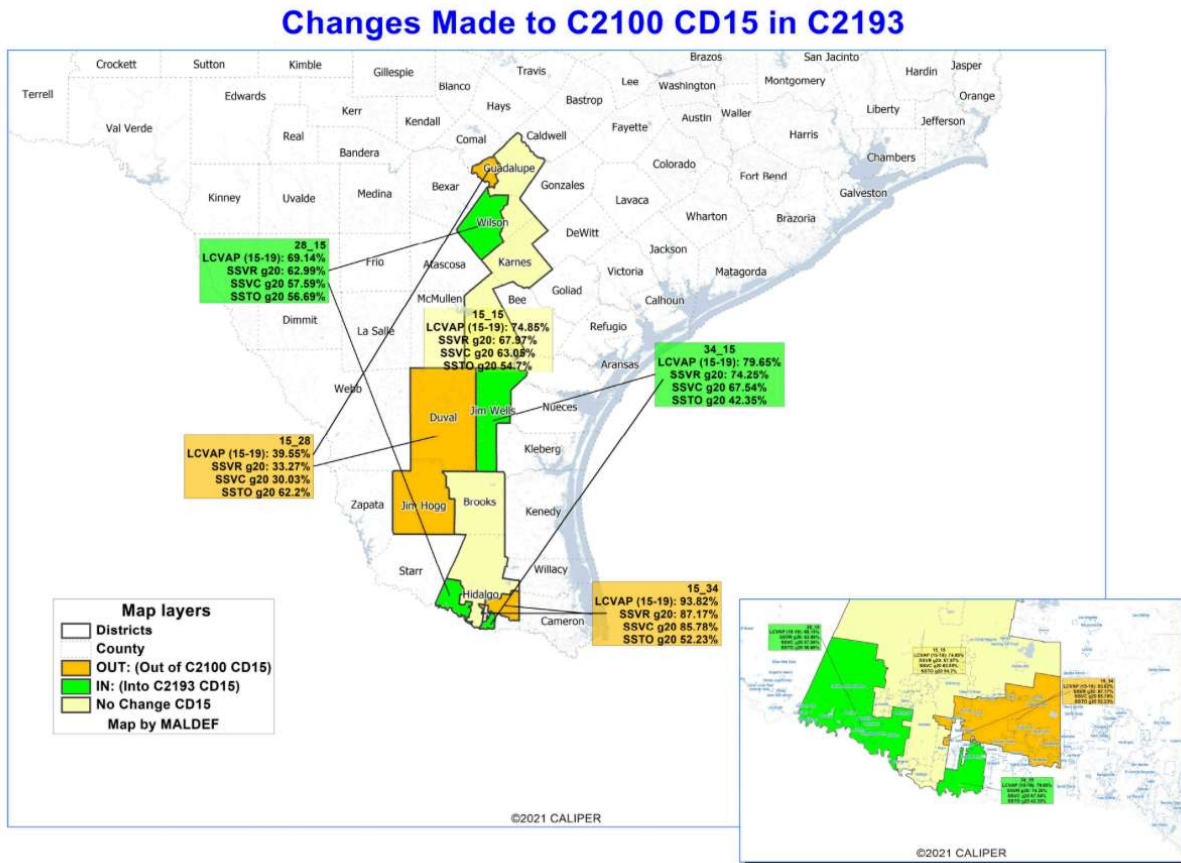
Flores Analysis

- 12. I have reviewed the expert report of Dr. Henry Flores that was submitted on May 20, 2022 on behalf of MALDEF in this case.
- 13. Dr. Flores' methodology with respect to his analysis of changes made in different districting plans is commonly used by experts evaluating changes made between districting plans, and has widespread acceptance within the political science community. This methodology is sound. I have reviewed his work and have confidence in what it shows.
- 14. I have reviewed Dr. Flores' analysis for CD15, HD118, HD 37, and SD 27.
- 15. After reviewing Dr. Flores' observations of Texas House District 118 (HD118), I agree with his observations.
- 16. HD 118 in the Enacted Plan lowers the Spanish Surname Registered Voters (SSVR) from 60.4% to 48.5% and the SSVRTO from 55.7% to 43.9%.
- 17. Below is Dr. Flores' in-out analysis which demonstrates which areas of HD118 were added or taken out of the Enacted Plan.

Changes Made to H2100 HD118 in H2316

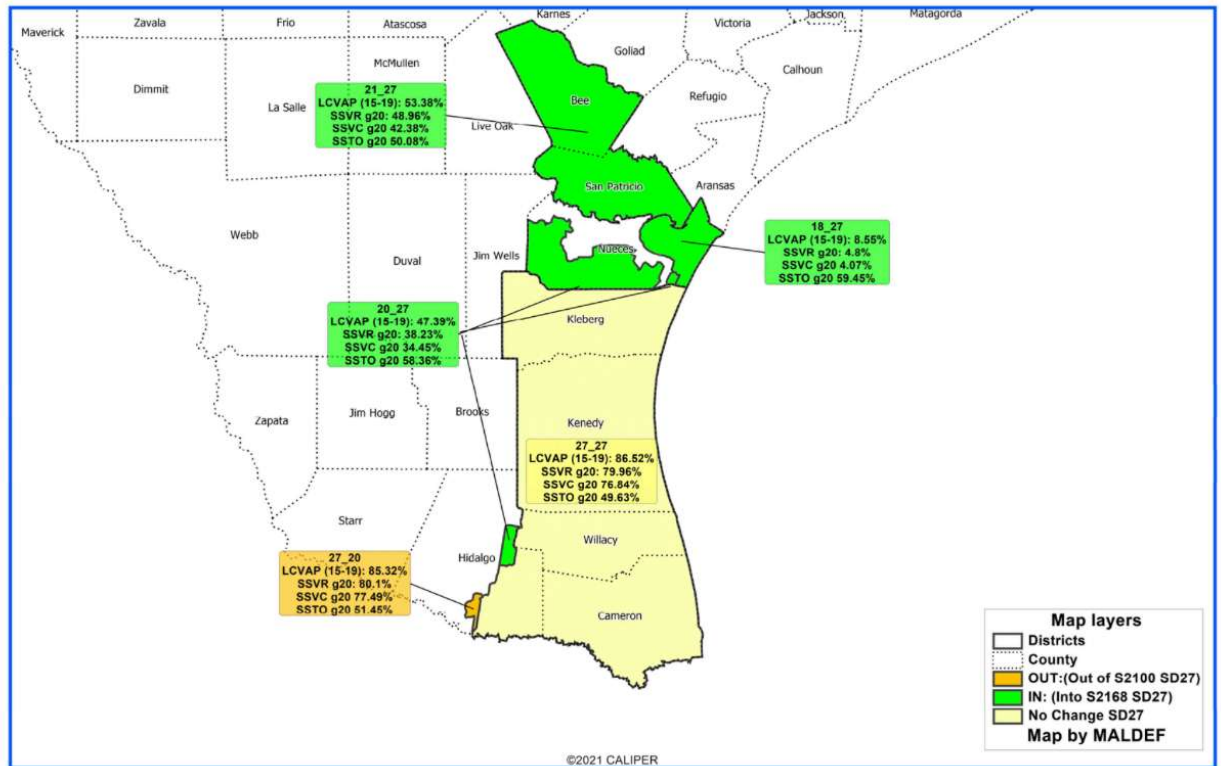


18. The changes to HD118 make it such that while the district remains majority Latino on its face, the ability for Latinos to elect their candidates of choice has been diluted.
19. After reviewing Dr. Flores' observations of Texas Congressional District 15 (CD15), I agree with his observations.
20. The enacted plan moved 239,796 people into the new CD 15 and 280,511 people out of the district.
21. The enacted CD 15 decreased the total SSVR by 8,634, the SSVRTO by 6,186, and reduced the HCVAP by 40,715.
22. The SSVR and Spanish Surname Registered Voter Turnout (SSVRTO) reduction in the enacted CD 15 was greater than that of the nonSSVR and nonSSVRTO.
23. 43% of Guadalupe County, 4% of Hidalgo County, and all of Duvall and Jim Hogg Counties were removed compared to the benchmark plan. The entirety of Wilson County was moved into CD 15, despite only 9% of the county being in the benchmark CD 15.



24. Above is Dr. Flores' in-out analysis which demonstrates which areas of CD 15 were added or taken out of the Enacted Plan.
25. The changes to CD 15 make it such that while the district remains majority Latino on its face, the ability for Latinos to elect their candidates of choice has been minimized.
26. After reviewing Dr. Flores' observations of Texas State Senate District 27 (SD27), I agree with his observations.
27. Despite the benchmark SD27 having a population of 831,674 which was 108,504 under the ideal population, 169,981 people were moved into the district and 79,504 people were moved out of the enacted SD 27.
28. The enacted SD 27 changed from 80.5% in the benchmark plan to 72.8% in the enacted map and the SSVRTO dropped from 76.8% to 67.1%.
29. The enacted SD 27 removed high SSVRTO voting tabulation districts (VTD) in Hidalgo County and added low turnout SSVRTO VTDs from Bee, Nueces, and San Patricio Counties.
30. Below is Dr. Flores' in-out analysis which demonstrates which areas of SD 27 were added or taken out of the Enacted Plan.

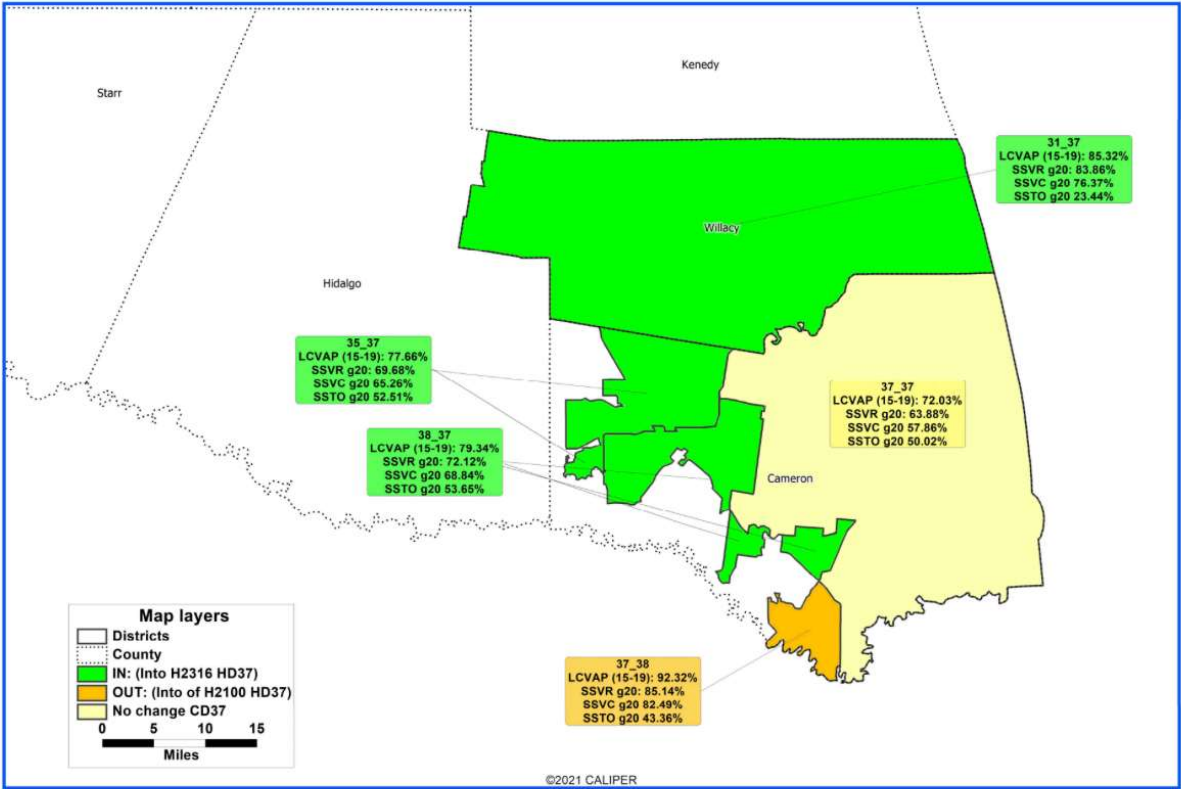
Changes Made to S2100 SD27 in S2168



31. SD 27 appears to remain a majority Latino district, but the removal of high turnout SSVR VTDs minimized Hispanic voters' opportunity to elect a candidate of choice.
32. After reviewing Dr. Flores' observations of Texas State House District 37 (HD37), I agree with his observations.
33. Despite the benchmark HD37 having a population of 161,877 which was 32,426 under the ideal population, 138,560 people were moved into the district and 115,545 people were moved out of the enacted HD37.
34. The enacted HD37 changed from 79.4% SSVR in the benchmark plan to 71.3%.
35. While those redistricting changes increased the SSVRTO by 3,326, they increased the nonSSVR by 11,063 in the enacted plan.

36. Below is Dr. Flores’ in-out analysis which demonstrates which areas of HD 37 were added or taken out of the Enacted Plan.

Changes Made to H2100 HD37 in H2316



37. While HD 37 appears to remain a majority Latino district, the increase in nonSSVR minimizes Hispanic voters’ opportunity to elect a candidate of choice.

38. The chart below presents data from the Texas Legislative Council (TLC) that shows for both the benchmark and enacted CD15, SD27, HD37, and HD118 total votes cast, total registered voters, SSVR, percentage of votes cast by Spanish Surname individuals who voted in the election (SSVC), percentage of votes cast by non-Spanish Surname individuals who voted in the election (non-SSVC), and the Spanish Surname Turnout for the 2018, 2020, 2022, and 2024 elections.

District	Year	Total Votes Cast	Total Registra tion	SSVR	% SSVR	SSVC	% SSVC	Non-SS VC	% Non-S SVC	% SSTO
Benchmark HD 118	Nov 2020	61,360	103,877	61,844	59.5%	34,258	55.8%	27,102	44.2%	55.4%

Enacted HD 118	Nov 2020	72,703	115,897	55,148	47.6%	31,955	44.0%	40,748	56.0%	57.9%
Benchmark HD 118	Nov 2022	41,534	107,797	64,174	59.5%	21,965	52.9%	19,569	47.1%	34.2%
Enacted HD 118	Nov 2022	52,207	124,988	60,080	48.1%	21,675	41.5%	30,532	58.5%	36.1%
Benchmark HD 118	Nov 2024	62,277	115,665	68,763	59.5%	34,247	55.0%	28,030	45.0%	49.8%
Enacted HD 118	Nov 2024	80,687	140,267	68,117	44.6%	36,008	44.6%	44,679	55.4%	52.9%
District	Year	Total Votes Cast	Total Registra tion	SSVR	% SSVR	SSVC	% SSVC	Non-SS VC	% Non-S SVC	% SSTO
Benchmark HD 37	2020	41,755	85,003	67,106	78.9%	30,985	74.2%	10,779	25.8%	46.2%
Enacted HD 37	2020	55,298	100,230	70,697	70.5%	36,350	65.7%	18,948	34.3%	51.4%
Benchmark HD 37	2022	26,896	87,275	67,907	77.8%	18,291	68.0%	8,605	32.0%	26.9%
Enacted HD 37	2022	40,556	103,507	72,848	70.4%	24,976	61.6%	15,580	38.4%	34.3%
Benchmark HD 37	2024	40,755	90,254	69,737	77.3%	29,402	72.1%	11,353	27.9%	42.2%
Enacted HD 37	2024	57,541	108,151	76,553	70.8%	38,225	66.0%	19,719	34.0%	49.9%
District	Year	Total Votes Cast	Total Registra tion	SSVR	% SSVR	SSVC	% SSVC	Non-SS VC	% Non-S SVC	% SSTO

Benchmark SD 27	2020	220,258	411,286	328,918	80.0%	169,233	76.8%	51,025	23.2%	51.5%
Enacted SD 27	2020	266,276	480,156	345,678	72.0%	178,755	67.1%	87,521	32.9%	51.7%
Benchmark SD 27	2022	146,070	428,638	340,059	79.3%	106,854	73.2%	39,216	26.8%	31.4%
Enacted SD 27	2022	181,029	498,902	456,824	71.5%	113,368	62.6%	67,661	37.4%	31.8%
Benchmark SD 27	2024	219,526	451,643	357,172	79.1%	166,306	75.8%	53,220	24.2%	46.6%
Enacted SD 27	2024	267,513	525,095	375,271	71.5%	177,145	66.2%	90,368	33.8%	47.2%
District	Year	Total Votes Cast	Total Registra tion	SSVR	% SSVR	SSVC	% SSVC	Non-SS VC	% Non-S SVC	% SSTD
Benchmark CD 15	2020	239,171	397,730	265,018	66.6%	146,860	61.4%	92,311	38.6%	55.4%
Enacted CD 15	2020	228,633	381,542	256,622	67.3%	141,875	62.1%	86,758	37.9%	55.3%
Benchmark CD 15	2022	163,856	423,742	279,340	65.9%	93,767	57.2%	70,089	42.8%	33.6%
Enacted CD 15	2022	156,738	404,946	269,782	66.6%	89,819	57.3%	66,919	42.7%	33.3%
Benchmark CD 15	2024	245,399	456,285	298,169	65.3%	145,407	59.3%	99,992	40.7%	48.8%
Enacted CD 15	2024	230,999	432,984	286,135	66.1%	137,801	59.7%	93,198	40.3%	48.2%

39. I declare under penalty of perjury that the foregoing is true to the best of my personal knowledge.

A handwritten signature in cursive script, appearing to read "Tye Rush".

March 31, 2025

Dr. Tye Rush

San Diego, California